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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/421,585	10/20/1999	ROBERT MILLER	RO999-057	4363

24038 7590 09/03/2003

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EXAMINER
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OPIE, GEORGE L

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 09/03/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Pre

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/421,585 <b>Examiner</b>	Miller et al.	
	George L. Opie	<b>Art Unit</b>	2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

#### Status

- 1)  Responsive to communication(s) filed on \_\_\_\_\_.
- 2a)  This action is FINAL.                    2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4)  Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-26 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved.
- 12)  The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

- 13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
    - a)  All b)  Some \* c)  None of the CERTIFIED copies of the priority documents have been:
      1.  received.
      2.  received in Application No. (Series Code / Serial Number) \_\_\_\_\_.
      3.  received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

- 14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

#### Attachment(s)

- |                                                                                                               |                                                                              |
|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 14) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 17) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 15) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 18) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 16) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 19) <input checked="" type="checkbox"/> Other: Text Doc for USP6,108,669     |

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**DETAILED ACTION****1. Request for copy of Applicant's response on floppy disk:**

Please help expedite the prosecution of this application by including, along with your amendment response in paper form, an electronic file copy in WordPerfect, Microsoft Word, or in ASCII text format on a 3½ inch IBM format floppy disk. Please include all pending claims along with your responsive remarks. Only the paper copy will be entered -- your floppy disk file will be considered a duplicate copy. Signatures are not required on the disk copy. The floppy disk copy is not mandatory, however, it will help expedite the processing of your application. Your cooperation is appreciated.

**2. Claim Rejections - 35 U.S.C. § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**3. Claim 7 is rejected under 35 U.S.C. § 112(2nd paragraph).**

As to claim 7, "executed by the at least one processor" lacks antecedent basis. Claim 7 has no "at least one processor" term that defines or supports the given reference.

**4. The U.S. Patents used in the art rejections below have been provided as text documents which correspond to the U.S. Patents. The relevant portions of the text documents are cited according to page and line numbers in the art rejections below. For the convenience of Applicant, the cited sections are highlighted in the *text documents*. Consistent with Office procedure, the U.S. Patents corresponding to the *text documents* are also included with this action.****5. Claim Rejections - 35 U.S.C. § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the

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requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1-26 are rejected under 35 U.S.C. § 102(e) as being anticipated by Moiin (U.S. Patent 6,108,699).

As to claim 1, Moiin teaches an apparatus (distributed computer system, p4 18-47) comprising:

at least one processor (processors 202A, Id.)  
a memory coupled to the at least one processor (memory 204A, Id.)  
a cluster engine residing in the memory and executed by the at least one processor (cluster membership monitor [CMM] which is a computer process executing within each of nodes 0-5, Id.)  
a job residing in the memory and executed by the at least one processor (applications which execute in any member node of current cluster, p13 24-57) the job including: at least one work thread that performs at least one predefined task (Command reader thread 1008, Id.) and  
a main thread that receives messages from at least one computer system coupled to the apparatus (main thread 1002 ... monitors messages received) that routes appropriate messages from the at least one computer system to the at least one work thread (remote procedure calling, Id.) and that signals to the cluster engine when at least one fault occurs when the at least one work thread performs the at least one predefined task (messages which indicate to CMM 220A which of the other nodes are operative, Id.).

As to claim 2, Moiin (p6 12-30) teaches a protocol that includes at least one acknowledge round (each member node of a cluster responds to a reconfiguration message . . . by broadcasting a responding reconfiguration message).

As to claims 3-4, Moiin (p13 24-57) teaches the main thread performs only local processing sans waiting for local resources.

As to claims 5-6, Moiin (p9 51 – p10 7) teaches “[o]n occasion, it is necessary for one or more nodes to leave the cluster” which results in “reconfiguration of the cluster to form a new cluster which does not include any failed nodes.”

As to claim 7, see the discussions of claims 1-2 and 6 supra. The limitations in claim 7 are an amalgamation of the features recited in claims 1-2 and 6. Hence, Moiin’s teachings regarding claims 1-2 and 6 are similarly applied to the corresponding claim 7 limitations.

As to claim 15, see the rejection of claim 6 supra.

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As to claim 16, Moiin (p4 18-47) teaches a computer program comprising: at least one work thread that performs at least one predefined task (Command reader thread 1008, p13 24-57) and a main thread that receives messages from a corresponding cluster engine (main thread 1002 ... server for applications which execute in any member node of the current cluster, Id.) that routes appropriate messages from the cluster engine to the at least one work thread (remote procedure calling for CMM 220A) and that signals to the cluster engine when at least one fault occurs when the at least one work thread performs the at least one predefined task (messages which indicate to CMM 220A which of the other nodes are operative, Id.).

As to claim 17-18, Moiin (p4 50-57) teaches "computer memory" limitations that meet the recited program product storage for providing and facilitating the software mechanisms.

As to claims 19-23, note the rejections of claims 2-6 above. Claims 19-23 are the same as claims 2-6, except claims 19-23 are computer program product claims and claims 2-6 are apparatus claims.

As to claim 24, note the rejection of claim 1 above. Claim 24 is the same as claim 1, except claim 24 is a computer program product claim and claim 1 is an apparatus claim.

As to claims 25-26, note the rejections of claims 17-18 supra.

## 7. Contact Information:

### PTO Policy for Facsimile Submissions:

- AFTER-FINAL faxes must be signed and sent to (703) 746-7238.
- OFFICIAL faxes must be signed and sent to (703) 746-7239.
- NON OFFICIAL faxes should be sent to (703) 746-7240.

All OFFICIAL faxes will be handled and entered by the docketing personnel. The date of entry will correspond to the actual FAX reception date unless that date is a Saturday, Sunday, or a Federal Holiday within the District of Columbia, in which case the official date of receipt will be the next business day. The application file will be promptly forwarded to the Examiner unless the application file must be sent to another area of the Office, e.g., Finance Division for fee charging, etc.

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- All responses sent by U.S. Mail should be mailed to:  
**Commissioner for Patents**  
**PO Box 1450**  
**Alexandria, VA 22313-1450**
- Hand-delivered responses should be brought to Crystal Park Two, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist). All hand-delivered responses will be handled and entered by the docketing personnel. Please do not hand deliver responses directly to the Examiner.
- Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at **(703) 305-9600**.
- Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Opie at (703) 308-9120 or via e-mail at **George.Opie@uspto.gov**. Internet e-mail should not be used where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the Applicant. Sensitive data includes confidential information related to patent applications.



ZARNI MAUNG  
PRIMARY EXAMINER